CLAIMS:

1. A method of heart assistance including the step of directly attaching a heart assist device including an inflatable balloon or chamber to the exterior of an arterial vessel.

2. The method as claimed in claim 1, wherein the balloon or chamber is itself attached to the arterial vessel.

3. The method as claimed in claim 1, wherein a shroud forming a part of the heart assist device and overlying the balloon or chamber is attached to the vessel to hold the balloon or chamber in contact with the vessel.

4. The method as claimed in claim 1, 2, or 3, wherein the shroud or the balloon or chamber is attached to the aorta around its circumferential periphery.

5. The method as claimed in claim 3, wherein the method includes the step of directly attaching the shroud of the heart assist device to an arterial vessel with the associated inflatable balloon or chamber secured beneath the shroud and adjacent the vessel.

6. The method as claimed in claim 5, wherein the method includes suturing the shroud to the vessel.

7. The method as claimed in claim 6, wherein the method includes suturing the shroud to the vessel with non-absorbable sutures.

8. The method as claimed in claim 5, wherein the method includes gluing the shroud to the vessel.

9. The method as claimed in claim 5, wherein the method includes stapling the shroud to the vessel.

10. The method as claimed in claim 5, wherein the method includes clipping the shroud to the vessel.

11. The method as claimed in any one of claims 5 to 10, wherein the balloon or chamber is attached at substantially all of its surface exterior that is disposed adjacent to the vessel exterior.

12. The method as claimed in claim 1 or 2, wherein the method includes the step of directly attaching the balloon or chamber of the heart assist device to an arterial vessel with an associated shroud or wrap secured over the balloon or chamber and onto the vessel.

13. The method as claimed in claim 12, wherein the method includes gluing the balloon or chamber to the vessel.

14. The method as claimed in claim 1 or 2, wherein the method includes the step of

directly attaching the balloon or chamber of the heart assist device to an arterial vessel with an associated fibrin or another natural adhesive protein secured over the balloon or chamber and onto the vessel.

15. The method as claimed in any one of the preceding claims, wherein the method includes the step of sequentially introducing and withdrawing a fluid into and from the balloon or chamber in counterpulsation with the arterial vessel.

16. A heart assist device including a shroud or wrap and an inflatable balloon or chamber, wherein the shroud or wrap has a larger peripheral extent than that of the balloon or chamber, and at least some of the periphery of the shroud or wrap is adapted for direct attachment to the arterial vessel.

17. The device as claimed in claim 16, wherein the shroud periphery is adapted for suturing to the vessel.

18. The device as claimed in claim 17, wherein the shroud periphery is sutured to the intercostal fascia and fascia overlying the vertebral column.

19. The device as claimed in claim 16, wherein the shroud periphery is adapted for gluing to the vessel.

20. The method as claimed in claim 16, wherein the shroud periphery is adapted for stapling to the vessel.

21. The device as claimed in claim 16, wherein the shroud periphery is adapted for clipping to the vessel.

22. A method of heart assistance, the method including the steps of gluing an inflatable balloon or chamber of a heart assist device to a wall of an arterial vessel and inflating the balloon or chamber to cause inward displacement of the wall in the region that is adjacent the balloon or chamber.